Research Note 84-50

THE TRANSMISSION OF POSITIVE AND NEGATIVE FEEDBACK TO SUBORDINATES

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A review of the literature revealed that superiors were often thought to be poor sources of performance feedback for their subordinates. A laboratory study was undertaken to discover if and when delay and upward distortion of feedback occurred. A 2 X 2 design was used with the factors feedback vs. no feedback and medium high vs. medium low subordinate performance. As expected, ratings of subordinate performance made for feedback purposes were inflated significantly when subordinate performance was medium low but not when subordinate performance

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was medium high. Contrary to the hypothesis, feedback was delayed longer when subordinate performance was medium high rather than medium low. This report is fourth in a series entitled "Motivational Consequences of Perceived Job Environments: The Critical Role of Feedback in Initial Work Experience."

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The importance of feedback for job performance has been emphasized repeatedly in recent years. Research on performance appraisal, Management by Objectives, job enrichment, and intrinsic motivation has documented the need for employees to know how they are doing on their jobs (Cook, 1968; Deci, 1971; Hackman and Oldham, 1976; Tosi and Carroll, 1970).

Clearly, feedback is an important and useful concept. Unfortunately the research dealing with it has been rather one sided. Most of the research to date has taken feedback as a given and proceeded to explore its effects on the people who receive it. (See Ammons, 1956, Annett, 1969; and Ilgen, Fisher, and Taylor, Reference Note 1, for Reviews). Much of this research has taken place in the laboratory under conditions which allowed the experimenter to choose the exact amount, type, and frequency of feedback which would be supplied.

The situation which exists in ongoing work organizations is somewhat different. Here there are two elements which are equally important in every feedback transaction: the recipient of the feedback, and the person or mechanism which supplies the feedback. The latter, which will be referred to as the source of feedback, cannot be taken for granted in most natural settings.

Employees often say the most valuable interpersonal source of feedback is their superior (Greller and Herold, 1975; Greller, Reference Note 2). However, there is some evidence suggesting that superiors are often poor sources of performance feedback. Specifically, they may be reluctant to give timely and accurate feedback to their subordinates. The reluctance seems especially pronounced when the feedback which should be given is negative.

The present study is designed to verify empirically that superiors are often unwilling to give negative feedback to their subordinates, and to discover whether there is a similar problem interfering with the transmission of positive feedback. The literature reviewed below pertains to whether or not people try to avoid giving positive and/or negitive feedback, and also to how they try to avoid it. Three manifestations of the reluctance to give feedback will be examined: avoiding giving feedback, delaying giving feedback, and distorting the feedback that is given.

Outright avoidance of giving negative feedback may occur in situations where giving feedback is not required. Blumberg (1972) has shown that people are reluctant to communicate negative interpersonal evaluations. Tesser and Rosen and their colleagues (see Tesser and Rosen, 1975, for a review) have repeatedly found that their subjects readily transmit favorable messages ("Call home about some good news." "Your aptitude test score was high.") but balk at transmitting unfavorable messages ("Call home about some bad news." "Your aptitude test score was low."). Oken (1961) and Fitts and Ravdin (1953) surveyed medical doctors and found that 69 to 88 percent of them were very reluctanct to tell patients with cancer their diagnosis. Thus there appears to be a pervasive desire, across a variety of settings, to avoid communicating unfavorable messages or evaluations to those affected by the information.

Since many organizations now require annual performance appraisal and feedback interviews for white collar employees, the option of avoiding giving feedback altogether is seldom open to superiors. In this case, the reluctance to transmit negative feedback may be manifested in more subtle ways such as delaying giving feedback for as long as possible, or distorting

negative feedback in a positive direction. Outright avoidance of giving feedback will not be considered further in this study because 1) its occurrence seems fairly well documented; 2) it is not an option for many superiors, and 3) allowing complete avoidance would reduce the sample size available for investigating delay and distortion in giving feedback.

Delaying may be another way the reluctance to give feedback is manifested. Tesser, Rosen, and Tesser (1971) uncovered a case of delayed bad news transmission in a field setting. The study was conducted in a state family service agency responsible for giving financial aid to the disabled. Data were collected on the difference between the time a decision was made to give or deny aid to an applicant, and the time the applicant was notified of the decision. Although the number of cases was only 27, a 2 X 2 chi square test (aid/no aid by notified same day/notified later) approached significance ($p < .08$). Individuals who were denied aid (bad news) were notified later than individuals who were to be given aid.

This is the only empirical study the author could find on sign of message affecting delay in transmission. The articles cited below state that delay occurs, but offer no data and do not specify whether positive or negative feedback is delayed the most. Gruenfeld and Weissenberg (1966, page 143) state, "Experience shows that managers often have to prod procrastinating supervisors to conduct appraisals." McGregor (1957, page 89) agrees, "Even managers who admit the necessity of such (appraisal) programs frequently balk at the process--especially the interview part...To meet this problem, formal controls--scheduling, reminders, and so on--are often instituted." These quotes provide anecdotal evidence that delay in giving feedback does exist in industry, and suggest that delay could readily become complete avoidance

in the absence of pressure from the organization to give feedback.

Hypothesis 1: Feedback will be delayed longer when subordinate performance is poor than when subordinate performance is good.

The bulk of the data reviewed so far indicates that people are much more reluctant to transmit negative feedback than positive feedback. The information which follows continues to support this conclusion. A common defense against having to transmit bad news is to distort the message. If the message can be modified to appear less negative, it should become easier to transmit. In several of their studies, Tesser and Rosen observed this happening (Rosen and Tesser, 1970; Tesser, Rosen, and Batchelor; 1972; Tesser, Rosen and Conlee, 1972). Their subjects would transmit only the nonvalenced portion of an unpleasant message. For example, they would tell the recipient to call home but omit mentioning that the recipient could expect to receive bad news upon calling.

Huttner and O'Malley (1962) have observed that distortion can happen in the feedback process at work. They studied high and low performing groups of salesmen and found that the only difference between the two groups was that the low performers over estimated their own performance. This led them to conclude that, "The less effective manager, if he communicates at all, apparently 'sweetens' or 'distorts' his assessment to the point that the salesmen are led to believe that they are doing well when this is not the case." (page 179). Oberg (1972, page 62) suggested that, "Rather than confront their less effective subordinate with negative ratings, negative feedback in appraisal interviews, and below average salary increases, superiors often take the more comfortable way out and give average or above average ratings to inferior performers."

To the author's knowledge, Stockford and Bissell (1949) present the only direct experimental evidence which verifies the above conclusions. They were able to obtain the quarterly performance ratings made by 485 supervisors in an aircraft assembly plant. These ratings had always been kept secret from the ratees. Two weeks after the quarterly evaluations, supervisors were asked to "re-evaluate" their employees, if necessary, and then conduct feedback sessions based on this new set of ratings. The mean rating on the quarterly evaluations was 60 (SD = 21) and the mean on the feedback ratings was 84 (SD = 14). This difference was highly significant and provides strong support for the idea that ratings made for feedback purposes may be inflated. It would be useful to know just where the distortion in the second set of ratings occurred. Since the mean increased greatly while the standard deviation became smaller, it is likely that initially low performance ratings were inflated the most. However, the huge increase in the mean suggests that even ratings which were originally above average were distorted upward before feedback was given.

Since most of the evidence suggests a greater reluctance to communicate negative feedback, hypothesis 2 refers only to distortion in negative feedback. However, the possibility that positive feedback might also be distorted slightly does exist and will be examined in this study.

Hypothesis 2: Ratings made for feedback purposes will be higher than ratings not made for feedback purposes when subordinate performance is poor.

The next section of this literature review explores some of the reasons for the reluctance to give feedback and presents hypotheses about these reasons.

The literature provides numerous reasons why feedback may be withheld, delayed, or distorted. The core of many of these reasons seems to be that superiors anticipate that giving negative feedback is potentially unpleasant for them and that receiving it is potentially unpleasant for their subordinates. Action is then taken in order to avoid or minimize the anticipated unpleasant experience.

A number of studies indicate that subordianates usually think they are doing a better job than their superiors think they are (Hanson, Morton and Rothaus, 1963; Prien and Liske, 1962; Thorton, 1968). Parker, Taylor, Barrett, and Martens (1959) also observed this tendency for self ratings to be inflated. In addition, they found that when subordinates were asked to rate themselves the way they thought superiors would rate them, they made ratings lower than their own self ratings, but not as low as the actual superior ratings This means that subordinates should nearly always be disappointed with the feedback they receive. Even if it is fairly positive, it may not be as positive as they expected and so may be perceived and responded to as negative feedback.

This is unfortunate because it can lead to "defensive communication," a process which is triggered by (among other things) being negatively evaluated (Gibb, 1973). When a defensive climate is provoked, the listener spends most of his or her effort trying to "win, dominate, impress, escape punishment, and/or avoid or mitigate a perceived or anticipated attack" (Gibb, 1973, page 242). If the superior responds to this defensive behavior of the subordinate with intensified negative evaluation and/or threats, very little improvement in subordinate performance could be expected to result from the feedback interview (Kay, Meyer, and French, 1965).

If the above scenario takes place, as McGregor (1957) believes it does, then two things happen. One, a potential benefit of giving feedback (improved performance) is lost, and two, the cost to the superior of causing an unpleasant and emotional scene is incurred. Tesser and Conlee (Reference Note 3) hypothesized that the latter might be a cause of the reluctance to transmit bad news observed in their earlier research. To test this idea, they provided subjects with a personality description of the individual who was to be their partner in

an experiment. Two types of personality descriptions were given. They were identical except for one item which described the partner as either calm or excitable when confronted with bad news. The subject then overheard a bogus phone call in which a bad news message was left for the partner (that the partner didn't get a job she wanted). The partner arrived and the subject had a chance to communicate the message. Seventy-nine percent of the subjects communicated the message when the recipient was expected to be calm while only 45% communicated the message when the recipient was expected to be emotional. Thus the desire to avoid causing an emotional outburst from the recipient may be one reason that superiors are reluctant to give negative feedback.

Hypothesis 3: Superiors who give negative feedback will expect giving feedback to be less pleasant for them than will superiors who give positive feedback.

Hypothesis 4: Superiors who give negative feedback will expect a less pleasant reaction to the feedback from their subordinates than will superiors who give positive feedback.

In addition to these immediate unpleasant effects of giving feedback, there also may be some long term costs associated with giving feedback which is perceived by the subordinate as negative. Mayer (1957) reported that many of his subjects would not communicate a negative evaluation of their friend's data for fear of harming their long standing friendship. Blumberg (1972) observed a similar phenomenon. Subjects were more likely to have told disliked persons about their negative traits than friends. Superiors may believe that giving negative feedback will harm the friendship and/or disrupt the working relationship they have with their subordiantes. Since they have to work with their subordinates over a long period of time, anything which might jeopardize a harmonious relationship may tend to be avoided.

Jones (1966) presents some interesting data which help explain why giving negative feedback may harm a friendship. He found that evaluations tended to

be reciprocated. If one was evaluated positively by another, one was likely to evaluate that other positively and vice versa. Thus communicating a negative evaluation to a subordiante may result in the subordinate evaluating the superior negatively. If superiors learn that this happens by experience, then they may attempt to avoid giving negative feedback in the future because they have learned to expect a reciprocal negative evaluation from the recipient of the feedback.

Distortion of negative feedback in a positive direction may be one way for superiors to avoid receiving a reciprocal negative evaluation from their subordinates. Williams and Goss (1975) found that a speaker conveying a message with which the audience disagreed could maintain credibility and avoid being negatively evaluated by equivocating and being deliberately vague while communicating the message. Superiors may be employing the same strategy when they inflate ratings which are made for feedback purposes.

Hypothesis 5: Superiors who give negative feedback will think that their subordinates like them less than superiors who give positive feedback.

METHOD

Design

A two X two completely crossed design was used. The first factor was level of subordinate performance and had the levels medium high and medium low. The second factor was feedback condition. Subjects either were required or were not required to give feedback to their subordinates.

Subjects

All subjects were white males who were required to participate in experiments for credit in an introductory psychology course. Confederates were also white males. White males were used exclusively in order to avoid any sex and race of rater by sex and race of ratee interactions that might otherwise have occurred (Bigoness, 1976; Hamner, Kim, Baird, and Bigoness, 1974).

Procedure

Overview: Subjects played the role of a manager. The manager monitored, recorded, and eventually evaluated the work of one subordinate, who was a confederate. Once the manager completed the evaluation, he either fed it back in a face-to-face performance appraisal interview with his subordinate, or did not feed it back at all. Following this manipulation, the subject filled out a questionnaire, was debriefed, and dismissed.

Detailed Description of Procedure: Subjects arrived one at a time for the experiment. While waiting for the experiment to begin, the subject was joined by a confederate posing as another psychology 120 student who had also signed up for the experiment. After talking for one or two minutes, the pair was approached by the experimenter. The experimenter explained that the true subject would be playing the role of the Manager of the Temperature Switch Division of Midwest Control Mechanisms, Inc. The confederate was to take the role of a unit supervisor in the Temperature Switch Division, and be the Manager's subordinate. Although the job title used for the confederate was "supervisor," he will hereafter be referred to as "the subordinate" in order to avoid confusion.

Both men were taken to the subordinate's office where the subordinates's (confederate's) task was explained to him with the manager looking on. The subordinate's task was to order the parts his unit would need each week. The manager started the weekly ordering process by sending the subordinate a "quota sheet" listing the number and type of switches to build. The subordinate responded by calculating the number and types of parts needed to build these switches and sending the completed order form to the superior.

The subordinate's office was adjacent to the manager's office, and the two rooms were connected by small trap doors in the wall with signal lights beside them. The trap doors were used to pass back and forth all quota sheets

and order forms. The use of these trap doors and lights assured that no unofficial feedback would be communicated before the formal performance evaluation.

The details of the manager's task were then explained to him in his own office. He was provided with the following task materials, which were explained to him by the experimenter.

1. A set of nine dated, filled out quota sheets to send to his subordinate one-at-a-time. When the subordinate completed an order form and passed it to the manager, the manager immediately set him the next week's quota sheet through the trap door.

2. Nine dated pieces of computer output containing the proper number of each type of part that the subordinate should have ordered each week. These were used by the manager to check his subordinate's performance on the parts ordering task.

3. A performance record sheet with space to record the accuracy of his subordinate's performance on the ordering task for each of nine weeks.

4. A performance evaluation form to be used for evaluating the subordinate's performance on the ordering task. (This evaluation form is described further in the measurements section below).

The manager was given the following instructions:

"Your task is to monitor, record, and evaluate your subordinate's performance. Each week you will send your subordinate a quota sheet telling him how many of each type of switches his unit needs to produce the next week. He will respond by ordering all the parts he needs to make these switches. You will take the order when he is finished with it and check it for accuracy, using the computer printouts of what the orders should be. Check each part order against the computer printout. Each order for a given part can be exactly correct, close but not exact (in the "acceptable range" shown on the printouts) or totally incorrect. Record the number of parts orders which fall into each of these three categories every week. Your total should always add up to seven, since seven parts are ordered every week, in quantities ranging from 0 to several thousand."

The lower portion of the performance record sheet provided the manager with standards for evaluating his subordinate's performance. These standards, like the ratings scales on the performance evaluation sheet, were intentially vague in order to allow distortion to occur. The standards were as follows:

excellent performance would be for the subordinate to get all seven part orders correct week after week, average performance would be getting all seven part orders within the acceptable range each week, and extremely poor performance would be getting all seven parts orders totally incorrect week after week.

Each manager experienced one of two levels of subordinate performance. The confederate implemented the level of subordinate performance manipulation by filling out the order forms using prearranged answer sets. In what was termed the "medium high" performance condition, the subordinate got three or four of the seven orders exactly correct and the remaining four or three within the acceptable range each week. In the "medium low" performance condition, the subordinate got three or four of the seven orders totally incorrect and the remaining four or three within the acceptable range week after week. These levels and patterns of performance were chosen to fall exactly between excellent and average or average and extremely poor performance as defined by the standards. This allowed ample room for upward and downward distortion of ratings at both levels of subordinate performance.

The actual instructions with regard to evaluating subordinate performance and giving feedback were as follows for the feedback condition:

> "When you feel that you are ready to evaluate your subordinate's performance and give him feedback, you will do so by filling out the three ratings scales on the performance evaluation form and then taking it next door and discussing the ratings you have made with your subordinate. You have to make an evaluation and give feedback once, but only once, during the nine weeks you and your subordinate are on this job. The time you choose to give feedback, and the evaluation you make, are strictly up to you as a manager. Some managers prefer to give feedback very soon, while others prefer to wait until quite a bit of work has been done by their subordinate before giving feedback. The decision is up to you.

Managers in the feedback condition were given a short pre-feedback questionnaire after filling out the performance evaluation form. After completing the ques-

tionnaire, they were taken in to the subordiante's office to give feedback. When the manager ended the performance appraisal interview with his subordinate, the experimenter informed him that work on the ordering task would cease. Up to this point, the managers had been led to believe that they would complete nine cycles of work with their subordinate no matter when the evaluation was made or feedback given. Subjects were then placed in a third room to fill out a post-evaluation questionnaire and then debriefed and dismissed.

Managers in the no feedback condition were given the same instructions with regard to when and how to evaluate their subordinates, but were told that they would not give feedback and that their subordinates would never see performance ratings they made. When performance evaluation form was filled out, managers in the no feedback condition were told that work on the task would cease. They were then moved to another room, given the post-evaluation questionnaire, debriefed, and dismissed.

Measures

Delay: Delay in giving feedback was simply the week in which feedback was given. A record of this was available from the performance record sheet that the manager kept on his subordinate. It was possible to tell from this sheet how many weeks of work the manager had monitored before switching to the performance evaluation form.

Distortion: Ratings of subordinate performance were collected on the performance evaluation form described below.

The evaluation form required the manager to rate his subordinate on three scales. The first was a horizontal line with three anchors, excellent performance, average, and extremely poor performance. The manager was to check the point on the continuum that best described his subordinate's performance. This will be referred to as the "centimeter scale" hereafter, since it was scored by measuring the number of centimeters from the "extremely poor performance" anchor to the check mark made by the subject. The second scale

was a 100 point scale broken into five-point intervals (i.e. 0, 5, 10, 15...). Three anchors were provided, 100 = extremely high performance, 50 = average, and 0 - extremely poor performance. The third scale consisted of four ordered "recommendations" by the manager to his subordinate. The manager was asked to check one tof the following: continue performance at present level, need to improve slightly, need to improve a moderate amount, or need to improve a great deal.

The three performance ratings scales were highly inter-correlated (correlations ranged from .86 to .97), so they were combined into a single summary scale. This scale was formed by converting the centimenter and recommendation scales to 100 point scales and adding them to the original one hundred point scale. Coefficient alpha for the summary scale was .96.

All other data in the experiment were collected by questionnaire. There were two questionnaires used, 1) the prefeedback questionnaire given to subjects in the feedback condition, 2) the post-evaluation questionnaire given to both feedback and no feedback subjects. The relevant itmes from these questionnaires are described below.

Prefeedback Questionnaire: This questionnaire was filled out after the evaluation of subordinate performance was made but before feedback was given. Its purpose was to gather data on what the manager thought the performance appraisal interview would be like. Three measures appeared on this questionnaire.

In the first measure, the manager was asked to describe how he thought his subordinate would feel about and would respond to the feedback he was about to give. This was tapped using an adjective checklist. The manager was asked to check all the adjectives that described the response he expected his subordinate to make. Five adjectives represented an unfavorable response to feedback. These were unhappy, hurt, disappointed, defensive, and angry. The checklist was scored

as follows:

checking a positive adjective was given a score of +1
not checking a negative adjective was given a score of +1
checking a negative adjective was given a score of -1
not checking a positive adjective was given a score of -1

The ones were then summed to form a total score. Coefficient alpha for this scale was .78.

A third item asked how pleasant or unpleasant the subject thought that giving feedback would be for him. This was rated on a nine point scale. The final item on the prefeedback questionnaire required the subject to rate the amount of improvement or decrement in his subordinate's performance that he expected to result from the feedback. This item was also answered on a nine point scale.

Post Evaluation Questionnaire: This questionnaire was given to all subjects at the conclusion of the experiment. It contained a number of items, two of which will be discussed here. The first was an open ended question which asked, "Why did you decide to give feedback when you did? Why didn't you do it either sooner or later?" For subjects in the no feedback condition, the phrase "give feedback" was replaced with "make your evaluation." The second was a single item measuring how much the manager thought his subordinate liked him. This item was answered on a seven point scale with seven anchors ranging from 1 = he dislikes me a lot to 7 = he likes me a lot.

Revised Procedure: After 19 to 21 subjects had been run in each cell, the cell means on the subordinate performance evaluation measures were examined to see if the distortion effect was occurring. The means were in the direction predicted by the hypothesis, but the differences did not reach conventional levels of significance. Therefore, the decision was made to increase the sample size, and to modify the procedure slightly. The change in procedure involved grouping superiors in all conditions a brief personality description of the subordinate at the beginning of the experiment. The description portrayed the subordinate as high

in need for achievement and concerned about doing well on any task assigned to him. The intent of this change in procedure was to make the experimental setting more similar to a real job setting by convincing the manager that feedback on performance would be taken seriously by the particular person who was assigned to be his subordinate.

Subsequent manipulation checks failed to detect any consistent or signficant effects for this change in procedure, so the factor personality information versus no personality information was dropped and the first and second halves of the study were combined for analysis.

RESULTS

The first hypothesis concerned delay in giving feedback. It was expected that superiors of low performing subordinates would wait longer to give feedback than superiors of high performing subordinates. However, superiors of low performing subordinates gave feedback after an average of 4.79 simulated weeks of work, while superiors of high performing subordinates waited an average of 6.01 weeks. This difference is highly significant ($t = -3.97$, $df = 83$, $p < .001$) in the direction opposite to that predicted by the hypothesis.

This result can be explained by the following two pieces of data. First, subjects who gave feedback to low performers expected their subordinates to improve significantly more ($\bar{x} = 7.03$) than subjects who gave feedback to high performers ($\bar{x} = 6.11$, $t = 2.96$, $df = 55$, $p < .01$). Perhaps superiors of low performers gave feedback sooner because they felt their subordinates needed it in order to improve. The open ended question of the post-evaluation questionnaire lends support to this explanation for the results of hypothesis 1. This question asked, "Why did you decide to give feedback when you did?" Responses seemed to fall into three categories; 1) subjects gave feedback when they did because subordinate peformance was <u>stable</u> and superiors felt they had <u>enought information</u> to make a good evaluation at this time, 2) subjects wanted to give their sub-

ordinates time to improve on their own before giving feedback, or 3) subjects wanted to give their subordinates time to improve after receiving feedback. Each response was coded by the major experimenter as to which, if any, of the above three reasons were mentioned. Of particular interest is reason number three. In the medium low subordinate performance condition, 45% of the subjects mentioned that they wanted their subordinate to have time to improve after feedback was given. Only 20% of the managers of high performing subordinates mentioned this reason. These percents are significantly different from each other ($z = 2.43$, $p \leq .05$).

The second hypothesis concerned distortion in ratings made for feedback purposes. It was predicted that when subordinate performance was low, ratings made for feedback purposes would be higher than ratings which were not to be fedback. This hypothesis was tested with a feedback condition by level of subordinate performance analysis of variance, the results of which appear in Table 1. The cell means can be found in Figure 1. The interaction is significant, and a Newman-Keuls test revealed that the low performance-no feedback mean of 86.28 was significantly lower than the low performance-feedback mean of 104.77 ($p < .05$). Thus, ratings of poor performance made for feedback purposes were inflated, and hypothesis two was supported. There was no inflation in ratings made for feedback purposes when subordinate performance was high.

Insert Table 1 and Figure 1 about here

Hypotheses three and four focused on the pleasantness of giving feedback for the superior and the superior's expectations about how favorable the subordinate's response to the feedback would be. It was predicted that both giving and receiving feedback would be rated as less pleasant when subordinate performance was low rather than high. Both of these predictions were supported. Superiors of low performers expectd that giving feedback would be significantly less pleasant for then than superiors of high performers ($\bar{x}$ low performance = 4.85, $\bar{x}$ high per-

formance = 6.1, $t = 3.72$, $df = 55$, $p < .001$). Superiors of low performers indicated on the adjective checklist that they thought their subordinate's reaction to the feedback would be less favorable ($\bar{x}$ low performance = - 5.09, $\bar{x}$ high performance = 1.81., $t = 7.7$, $df = 83$, $p < .001$).

The final hypothesis stated that superiors who gave feedback to low performers would think their subordinates liked them less than superiors who gave feedback to high performers. The dependent variable for testing this hypothesis was a single item which was administered on the post-evaluation questionnaire. The item asked the superior to rate how much he thought his subordinate liked him on a seven point scale. The hypothesis was tested with a level of subordinate performance by feedback condition analysis of variance. The results are presented in Table 2. Both the main effect for performance and the interaction of performance with feedback are significant. Cell means are presented in Figure 2.

Insert Table 2 and Figure 2 about here

The pattern of cell means provides strong support for hypothesis 5. Superiors who did not give feedback thought their subordinates liked them about the same amount regardless of the subordinate's level of performance. However, superiors who gave feedback to high performers thought their subordinates liked them significantly more than superiors who gave feedback to low performers.

Discussion

The overall conclusion that is possible from the results of this study is that the level of subordinate performance (and hence the sign of the feedback which should be given) does affect superiors' attitudes and behaviors with respect to giving feedback to their subordinates

It was found that superiors gave feedback significantly sooner when subordinate performance was poor than when it was good. This is contrary to the delay hypothesis, but can perhaps be explained by the short-term nature of the

study and the superiors' apparent desire to improve their subordinates' performance.

Superiors in this study knew that only nine weeks of work would be completed. Therefore, those who wanted their poor performing subordinates to improve had to give feedback quickly. However, the situation may be quite different in actual organizations, where the time limits for improvement in subordinate performance are much longer and less well defined. Although the delay hypothesis was not supported in this study, the generalizability of these results to a field setting could be questioned, and the hypothesis cannot be dismissed entirely at this point.

Level of subordinate performance also affected distortion in ratings made for feedback purposes. Ratings which were to be fedback were significantly higher than ratings which were not to be fedback when subordiante performnace was poor.

The generalizability of this significant distortion effect to organizational settings would seem to be quite good. There were many differences between the present study and organizations, some of which are discussed below. However, each of these differences suggest that distortion will occur in organizations, and will occur to an even greater extent than observed in this study.

First, as mentioned above, superiors in this study seemed to believe that giving negative feedback would lead to a rapid improvement in their subordinate's performance. If subordinates could be convinced that they were making many errors, then they could easily be persuaded to start being more careful in their calculations and thus improve their performance. Therefore, giving accurate negative feedback should help improve performance as much or more than distorted feedback in this study. In organizations, one might suspect that the

perceived relationship between giving accurate negative feedback and an immediate and dramatic improvement in subordinate performance is much weaker. Therefore, distorting feedback to avoid upsetting one's subordinate might be a more attractive course of action in the latter setting.

Second, the subjects knew that they were in an experiment, and were expected to do what the experimenter asked. The experimenter told the subject that he had to give feedback. Therefore, the subject could attribute the cause of his behavior to the experimenter and ignore any guilt or responsibility he might have felt about giving accurate, low ratings.

Third, the superior and subordinate did not know each other before hand, and hence had no established friendship which might be damaged by negative feedback. In the same vein, the superior knew that he would not have to work with his subordinate for very long so he should have had less concern about antagonizing him.

Fourth, the evaluation and feedback had no effect at all on the subordinate's future in terms of salary or advancement. Thus, superiors in this study should have anticipated a relatively less severe subordinate reaction to feedback than would superiors in organizations. Although the anticipated subordinate response to feedback was unpleasant (negative in sign), it would be expected to be substantially more unpleasant, and to result in a greater reluctance to give accurate negative feedback if the feedback had serious implications for the subordinate's future.

Fifth, performance was relatively easy to evaluate in this study. While the rating scales and performance standards were fairly vague, the computer printouts indisputably held the correct answers. It was very easy to classify each part order as being exactly correct, within the acceptable range, or totally incorrect. All the superiors had to do was map objective performance data onto

performance ratings scales. In contrast, it is often very hard to evaluate performance and almost impossible to adequately document the reasons for the evaluation that is made in organizational settings. When one's ratings can be easily challenged, as in the latter case, then the tendency to distort feedback upward in order to avoid any possible controversy must be very strong. These five characteristics of the experimental situation should cause the distortion effect observed in this study to be greatly reduced from what it would be in an actual organization. The fact that a significant amount of upward distortion was found in this study despite these shortcomings would seem to indicate that distortion may be a very severe problem in work organizations. The magnitude of upward distortion of negative feedback may be very great. This conclusion is in agreement with the data of Stockford and Bissell (1949), who observed a 24 point increase in mean ratings (on a 100 point scale) when feedback on the ratings was to be given.

The possibility of distortion in feedback ratings occurring when subordinate performance was high was mentioned in the introduction. In fact no upward distortion of these feedback ratings was found. The reasons for this lack of distortion may include the five listed above. That is, the factors which were thought to cause distortion may not have been salient enough in this study to cause this subtle effect. The finding of no distortion in the medium high performance condition may also have been a function of the task. Recall that superiors in the medium high performance condition anticipated a favorable reaction to the feedback they gave. Comments made by the subjects to the experimenter and to the subordinate while giving feedback suggested that the subordinate's task was seen by many superiors as being 1) fairly complex, and 2) one on which it would be easy to make minor mathematical errors. This being the case, medium high performance (e.g. getting half the answers exactly correct and the other half close to correct) was considered by many superiors to be quite acceptable,

and an accomplishment of which the subordinate should be proud. Therefore, giving accurate feedback when performance was medium high was not expected to be unpleasant either for the superior or the subordinate.

In actual organizations, this may not be the case. Ilgen et al. (Reference Note 1) pointed out that the sign of feedback could only be evaluated relative to the recipient's frame-of-reference. If the recipient hoped and expected to receive feedback that performance was excellent, then feedback that performance was medium high would be considered negative. In highly competitive settings, or where there is already wide spread inflation in the rating system, any rating other than excellent may be considered to be a black mark (Glickman, 1955). In this case, superiors may feel the need to inflate even fairly positive ratings in order to avoid antagonizing their subordinates. Further research in actual organizations will be needed to investigate upward distortion in positive feedback ratings.

Finally, the level of subordinate performance affected the superiors' attitudes and beliefs about giving feedback. Superiors of low performing subordinates believed that giving feedback would be less pleasant for them and and less pleasant for their subordinates than superiors of high performing subordinates. Superiors of low performing subordinates also believed their subordinates liked them less than superiors of high performing subordinates. Unfortunately, the design of this study does not allow for any causal inferences to be drawn from the above facts. It remains for future research to determine whether the anticipated unpleasantness of giving and receiving feedback and the expected effects of feedback on friendship are among the causes of inflation in the feedback given to poor performers.

In conclusion, the greatest value of the research presented here is that it provides a start. It demonstrates that a little researched and often ignored phenomenon, upward distortion in negative feedback, does occur. Future research should be directed towards determining the extent and impact of this phenomenon

in actual work organizations. If distortion, and/or delay, and/or avoidance in giving feedback are found to be significant problems in organizations, then further research can address both the causes of, and the effects (on subordinate performance) of these errors in the performance appraisal and feedback system.

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Table 1

Analysis of Variance on Summary Ratings of Subordinate Performance

Source	df	F	p
Feedback	1	2.15	.15
Performance	1	545.00	.001
Interaction	1	4.11	.05
Error	157		

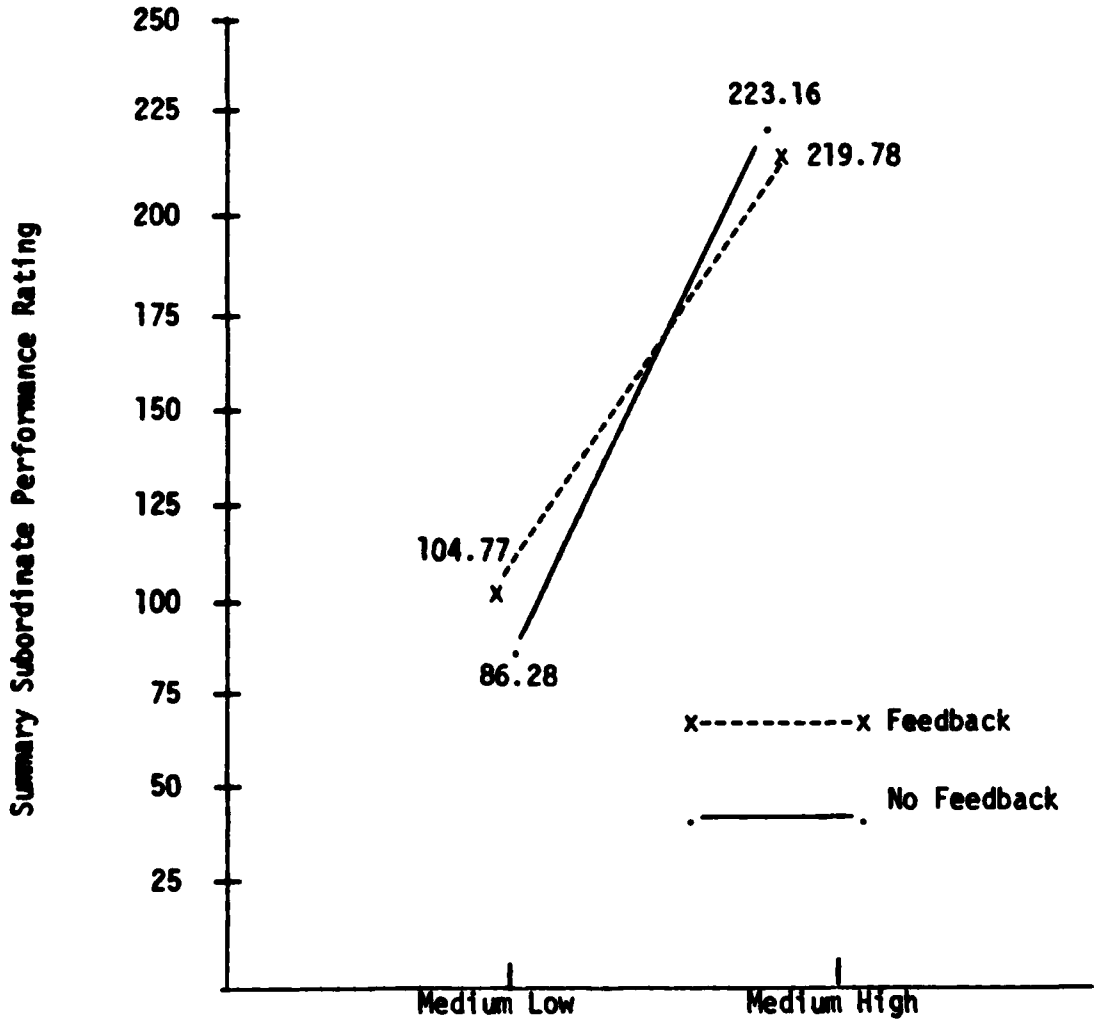

Figure 1

Cell Means of Summary
Subordinate Performance Rating Scale

Table 2

Analysis of Variance on Superior Ratings of Subordinate Liking for Superior

Source	df	F	p
Feedback	1	1.13	.30
Performance	1	19.71	.001
Interaction	1	8.22	.005
Error	153		

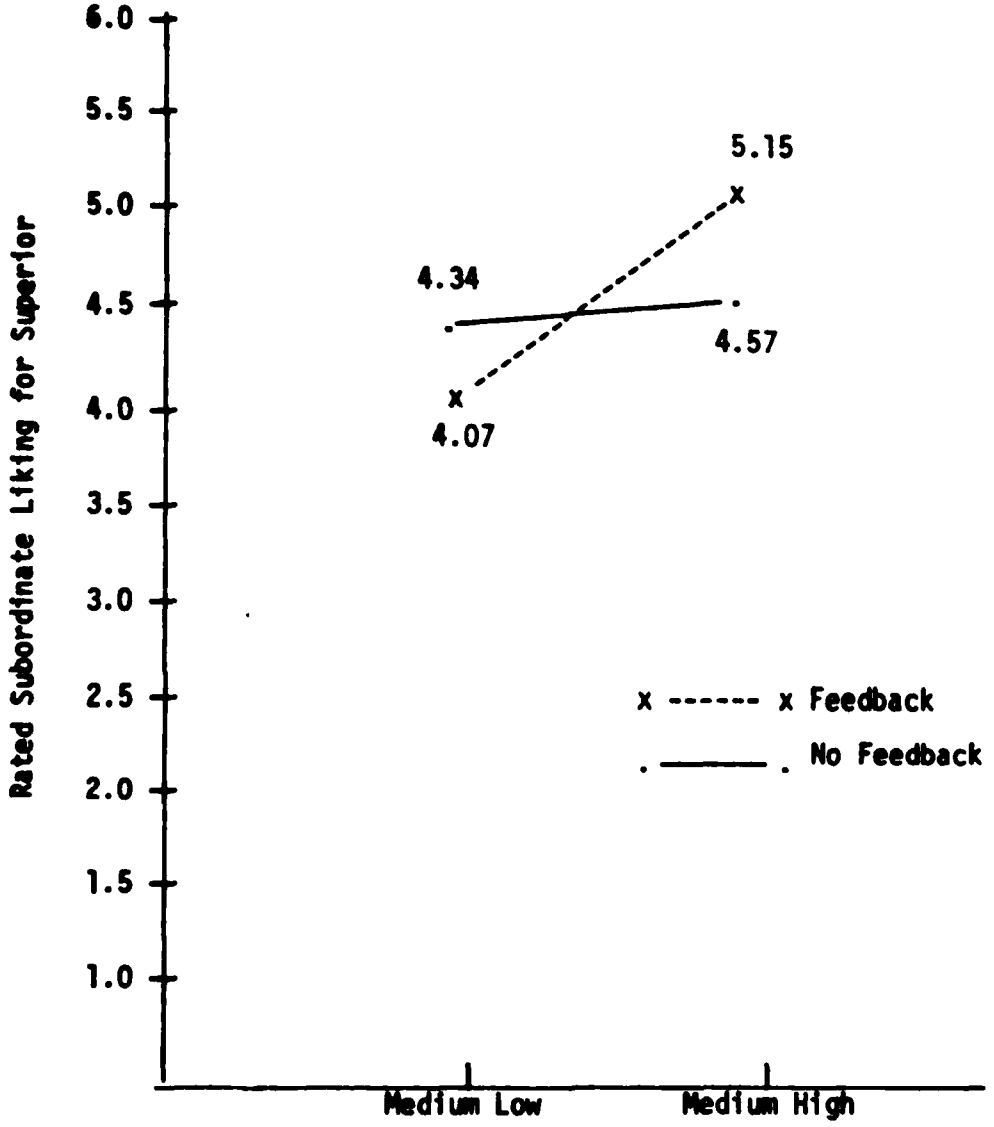

Figure 2

Cell Means of Superior Rating
of Subordinates' Liking for Superior